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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,467	07/11/2003	Thomas P. Miltich	P-11445.00	9950
27581	7590	09/09/2004	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARKWAY NE MS-LC340 MINNEAPOLIS, MN 55432-5604			THOMAS, ERIC W	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/618,467	Applicant(s) MILTICH ET AL.	
	Examiner Eric W Thomas	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 21-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of invention I in the reply filed on 6/28/04 is acknowledged. The traversal is on the ground(s) that based on applicants' understanding that there is no undue burden imposed on the Examiner. This is not found persuasive because an undue burden would be imposed on the examiner (as shown by the distinctiveness of the inventions – note classification).

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Claims 15-17, & 19, are objected to because of the following informalities:

Claim 15, line 1, change "the metalized separator is" to –the one or more metalized separators are--.

Claim 16, line 1, change "the metalized separator further includes" to –the one or more metalized separators further include--.

Claim 17, line 1, change "the cathode sectors" to –the one or more cathode sectors--.

Claim 17, line 2, change "said cathode films" to –said one or more cathode films--.

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Claim 17, line 5, change "the anode sectors" to --the one or more anode sectors--.

Claim 17, line 6, change "said anode films" to --said one or more anode films--.

Claim 19, line 1, change "the metalized separators" to --the one or more metalized separators--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4, and 20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

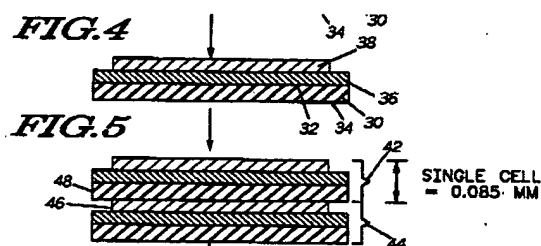
Claim 4 contains the trademark/trade name NUCLEPORE, CYCLOPORE, ISOPORE, PORETICS and MEMTREX and SPI-Pore. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the

6. Claim 20 recites the limitation "the separator segments" in line 1. There is insufficient antecedent basis for this limitation in the claim. *The examiner examined this claim as if claim 20 depends on claim 19.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, & 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bai et al. (US 5,568,353).



Bai et al. disclose in fig. 4 & 5, a sealable cell enclosure (col. 4 lines 20-22) a capacitor cell comprising metalized separators (fig. 4) the separators

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including a separator base (38) wholly coated with spaced apart anode film, the cathode is coated onto the metalized film, an electrolyte that activates the anode film and the cathode film (col. 4 lines 20-22). (*Applicant should note col. 3 lines 35-40).

Regarding claim 16, Bai et al. disclose the metalized separator include a cathode sector, an anode sector, and a separator sector (each element) and wherein each or the sector is spaced-apart from each other.

Regarding claim 17, Bai et al. disclose the cathode sector including the cathode film, wherein the cathode film is copper.

9. Claims 1, 7, 11, 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Munshi (US 6,426,863).

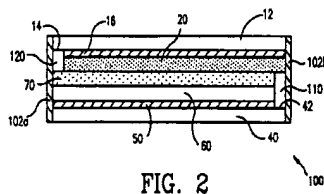


FIG. 2

Munshi discloses in fig. 1c & 2, a sealable cell enclosure (102a, 102b) a capacitor cell comprising metalized separators (12, 16) the separators including a separator base partially coated with spaced apart cathode film (16), the anode is coated onto the metalized film, an electrolyte that activates the anode film and the cathode film (claim 19).

Regarding claim 7, Munshi discloses the cathode film includes titanium (claim 22).

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Regarding claim 11, Munshi discloses the capacitor cell is a flat cell (see fig. 1c, 2).

Regarding claim 19, Munshi discloses (fig. 1c, 2) the metalized separators are separator segments (has a portion that is not metalized).

Regarding claim 20, (as if depended on claim 19), the separator segments include an apron that is substantially free of metal material (see fig. 1c, 2).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US 5,754,394) in view of Munshi (US 6,426,863).

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Regarding claim 1, Evans et al. disclose in fig. 7, a capacitor cell comprising a sealable cell enclosure; metalized separators (formed after lamination) including a separator base (26'), wholly coated with one or more spaced apart anode or cathode films. Evans et al. disclose the electrolyte forms the separator.

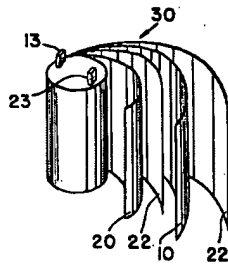
Evans et al. disclose the claimed invention except for an electrolyte also disposed within the enclosure that activates the anode film, cathode film, or both films.

Munshi teaches that it is known in the art to form impregnate a polymer electrolyte layer with a fluid electrolyte (see claim 26). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Evans et al. by using impregnating the separator with a liquid electrolyte as taught by Munshi, since such a modification would produce an electrolytic layer having high electroconductivity.

Regarding claim 7, Evans et al. disclose the cathode film includes titanium.

Regarding claim 10, Evans et al. disclose the anode film is formed from a pressed sintered powdered aluminum material disposed on the side of the separator that does not include the cathode film.

13. Claims 1-3, 5-6, 8-9, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernard (US 4,323,950) in view of Japanese publication JP 10-163059 ('059).



Bernard discloses in fig. 3, a capacitor cell comprising metalized separators the separators including a separator base wholly coated with spaced apart cathode film (10), the anode is coated onto the metalized film, an electrolyte that activates the anode film and the cathode film (example 1).

Bernard discloses the claimed invention except for the capacitor cell is formed in a sealable cell.

'059 teaches that it is known in the electrolytic capacitor art to form a capacitor cell in a sealable cell (see abstract & fig. 1). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the capacitor cell of Bernard in a sealable cell as taught by '059, since such a modification would provide protection for the capacitor from the external environment.

Regarding claim 2, Bernard discloses the separator material is formed from paper (see example 1).

Regarding claim 3, Bernard discloses the separator material is formed from Manila paper (see example 1).

Regarding claim 5, Bernard discloses the separator base has a thickness of 38.1 μm (see example 1).

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Regarding claim 6, Bernard discloses the separator base has a thickness of 38.1 μm (see example 1).

Regarding claim 8, Bernard discloses the cathode film has a thickness of 5-150 μm (see col. 2 lines 30-35).

Regarding claim 9, Bernard discloses the cathode film has a thickness of 25-40 μm (see col. 2 lines 30-35).

Regarding claim 11, Bernard discloses the claimed invention except for the anode film has a thickness of approximately 50-250 microns.

It would have been an obvious matter of design choice to form the anode film to have a thickness of 90 microns, since such a modification would have involved a mere change in the size of a component, a change in size is generally recognized as being within the level of ordinary skill in the art. *In re. Rose*, 105 USPQ 237 (CCPA 1955).

Regarding claim 12, Bernard discloses the claimed invention except for the anode film has a thickness of approximately 90-125 microns.

It would have been an obvious matter of design choice to form the anode film to have a thickness of 90 microns, since such a modification would have involved a mere change in the size of a component, a change in size is generally recognized as being within the level of ordinary skill in the art. *In re. Rose*, 105 USPQ 237 (CCPA 1955).

Regarding claim 13, Bernard discloses the capacitor cell is a cylindrical cell.

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14. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bernard (US 4,323,950) and Japanese publication JP 10-163059 ('059) as applied to claim 2 above, and further in view of Boos et al. (US 3,634,736).

Bernard discloses the claimed invention except for the separator base is formed from one or more track etched polycarbonate material.

Boos et al. teach the use of a polycarbonate track etched separator material. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the separator of Bernard using a polycarbonate track etched material as taught by Boos et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

15. Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munshi (US 6,426,863) in view of Suzuki (JP 04-240708).

Munshi discloses the claimed invention except for the metalized separator is folded in a z-fold configuration.

Suzuki teaches that it is known in the electrolytic capacitor art to stack a capacitor cell having a z-fold configuration (zigzag).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the capacitor of Munshi by stacking the capacitor cell having a z-fold configuration, since such a modification would provide a capacitor having a high surface area that is compacted.

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Regarding claim 18, Munshi discloses that each separator sheet has the cathode material adjoined to one side of the sheet and the one anode material adjoined to the other side of sheet.

Conclusion

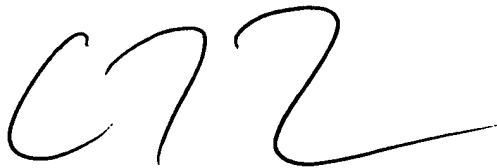
In order to ensure full consideration of any amendments, affidavits, or declaration, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR 1. 116, which will be strictly enforced.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric W Thomas whose telephone number is 571-272-1985. The examiner can normally be reached on M,Tu,Sat 9 am - 9:30 pm; W, Th, F 6 pm -10:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



8/28/04

Eric W Thomas
Examiner
Art Unit 2831

ewt